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Can Plurilateral Agreements Save Global Free Trade?

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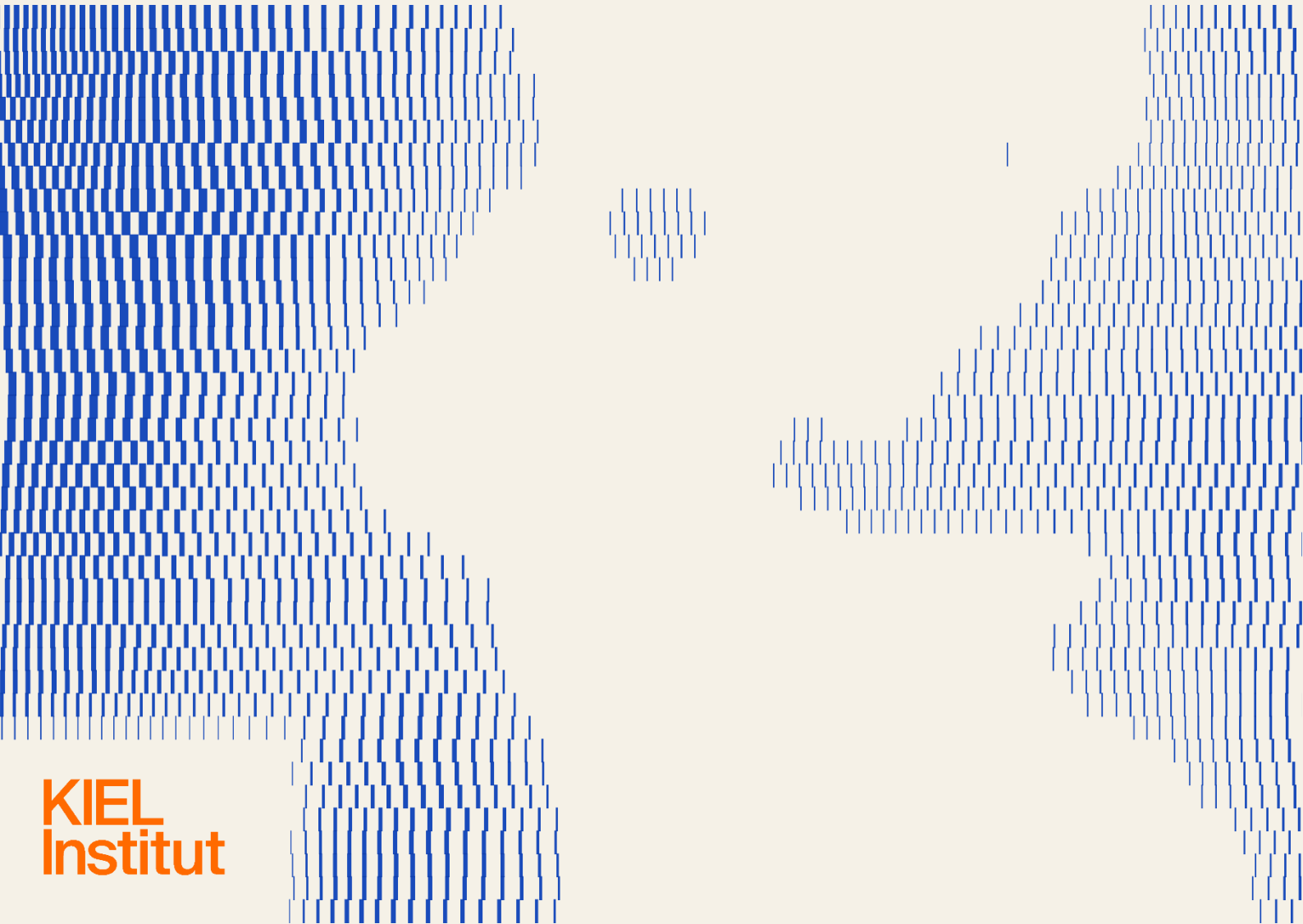

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Overview/Überblick

- we analyze plurilateral trade agreements that liberalize trade in particular products among a range of countries
- the Information Technology Agreement (ITA) covers around 12% of global trade
- our theory shows that such agreements can be a way forward for multilateral liberalization in the context of the WTO
- an empirical study shows that the 2nd phase of the ITA does have a positive impact on global trade in IT products

Keywords: Plurilateral Agreements, Preferential Trade Agreements, Global Free Trade, WTO

- wir analysieren multilateral Handelsabkommen, die den Handel mit bestimmten Produkten zwischen vielen Ländern liberalisieren
- das Informationstechnologie-Abkommen (ITA) deckt ca. 12% des globalen Handels ab
- unsere theoretische Analyse zeigt, dass solche Abkommen ein Weg nach vorne für multilaterale Liberalisierung im Rahmen der WTO sein kann
- eine empirische Studie zeigt, dass die zweite Phase des ITA einen positiven Effekt auf den globalen Handel mit IT-Produkten hat

Schlüsselwörter: Plurilaterale Abkommen, Präferenzielle Handelsabkommen, globaler Freihandel, WTO

JEL classification: F12, F13, F15, F18

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Plurilateral Trade Agreements are agreements that cover a narrow band of commodities – often a single sector – among a group of countries, a sizeable subset of WTO members. A few examples are the Information Technology Agreement, the Agreement on Trade in Civil Aircraft, and the Government Procurement Agreement. These differ in whether trade liberalization is extended to non-participating countries, and they differ in how open they are to accession by new members.

To understand the relevance of these agreements for global trade policy, we take a closer look at the current state of global trade policy coordination. The process of trade liberalization has traditionally been conducted under the auspices of the GATT (General Agreement on Tariffs and Trade) which led to the foundation of the WTO (World Trade Organization) at the conclusion of the Uruguay Round in 1994.

This process was rather successful at reducing tariffs on manufactured goods and at addressing concerns of the developed world, such as intellectual property rights, investment protection, and trade related services. It did achieve less for developing countries. Partly because of this bias, it did not make much progress beyond the Uruguay round. The Doha Round was started in 2001, but has never been concluded. Admittedly, it does not come as a surprise that a process with more than 100 member countries, and which grants veto power to every single member country, has hit a roadblock.

Instead, global trade liberalization has taken the path of preferential liberalization by forming an ever-increasing number of preferential or regional trade agreements. The WTO counter stands at 380 agreements in force as of early 2026, with plenty more notified, ie on their way. These agreements go by the name preferential, as member countries give preferential market access to imports from each other. This violates the WTO's most favoured nation (MFN) principle and is allowed by the WTO only under article 24 of its regulation. Note that preferential treatment for some implies discrimination of others, namely of third countries remaining outside these exclusive clubs.

The preferential track has therefore been controversial, with many trade economists doubtful that the inherent discrimination of outsiders can be overcome. The open question raised in academic discussions has been whether an ever denser web of preferential agreements might one day lead to global free trade, or whether this process will turn out to be a dead-end, and we end up stuck in a fragmented world.

These preferential agreements come in two varieties: free trade areas (FTAs) or customs unions. The former allows member countries to set their individual trade policy vis-a-vis outsiders, whereas customs unions require a common external tariff. The requirement to set such a common external tariff is a rather severe restriction: a customs union member cannot individually form or join other preferential agreements, as this would violate its obligation to set the common external tariff. For a country like Ukraine, sandwiched between two customs unions, which a priori would have benefited from trade with both sides, the consequence – namely being forced to choose sides – has been disastrous. The sanctions (and counter-sanctions) levied

against Russia, Iran, and others, are another important reason for fragmentation of the trade policy landscape, as is the intention to diversify supply chains in order not to rely too heavily on one single partner (read China).

Turning attention back to plurilateral agreements, the digression on the state of global trade policy coordination helps explain why some economists view the possibility of forming plurilateral agreements as a shimmer of light at the end of the tunnel in terms of making progress within the multilateral trade policy framework. Bagwell et al. (2016) share this view and point out that plurilateral agreements strengthen the WTO process, and deem them more appealing than preferential liberalization.

Our work on plurilateral trade agreements has two components: theory and empirics. On the theory side, Chochua et. al.(forthcoming) extend the workhorse model of the PTA literature by adding a differentiated goods sector, in order to study the formation of plurilateral agreements (potentially in combination with PTAs). On the empirical side, Chochua and Iodice (2025) investigate the effects of the Information Technology Agreement (in particular its 2nd phase) as this represents a prime example of a plurilateral agreement that covers more than 10% of global trade.

The theoretical studies of PTA formation have mostly relied on a stylized 3-country, 3-commodity, endowment model which is know as the competing exporters model because only two countries are endowed with each of the three commodities, and hence compete to export this commodity to the third country. The limitation to three countries is due to the exponential growth in the number of coalitions one has to consider as the number of countries increases. And three are the minimum necessary to study PTA formation, as you would like to see at least one outsider when the other two form a preferential agreement. The important innovation of our work is the addition of a fourth sector, where differentiated varieties are produced by monopolistically competitive firms, a standard feature of today's trade models. We study plurilateral agreements in this differentiated goods sector.

Up to now, the literature has only considered a limited set of trade agreements: FTAs *or* customs unions at a time, not both. And authors have often used a variant of the Nash equilibrium concept to solve the trade policy game, which is limited in the deviations it considers. We are more general on both counts, allowing a richer set of trade agreements, including plurilaterals (also in combination with PTAs), and we use the forward-looking solution concept of Chwe (1994) who allows for an infinite sequence of deviations by varying coalitions.

Solving the trade policy game based on this concept has the benefit of using a numerical, computer-based solution procedure that finds the set of stable, equilibrium policy regimes, even when governments can choose from a wide set of regimes.

When solving our model, we let the three governments coordinate on the global trade policy regime. Subject to the constraints on tariffs imposed by the regime chosen, they then set optimal trade policies seeking to maximize national welfare. Finally, the economy plays out in terms of production, trade and consumption. Considering

different country size constellations, we find the stable global trade policy regime(s) in political equilibrium.

For the case when all three countries are of equal size (in terms of their endowments), we confirm the standard result that global free trade is the only equilibrium outcome, as long as we abstract from plurilateral agreements. Once we allow for these, we find that a hub-and-spoke FTA setup in combination with a plurilateral agreement between the two spoke countries is also an equilibrium outcome. This demonstrates that plurilaterals have a role to play, without compromising PTAs.

Turning to asymmetric size constellations, when two countries are small and the third is large, we again confirm the standard result if we do not allow for plurilaterals: the two small countries form a customs union, excluding the large country. This is known as the exclusion incentive, the small countries do not want to grant market access to their large counterpart. This might have played a role when the EU was debating the TTIP mega-regional with the US.

Once we allow for the formation of a plurilateral agreement, the incentive to exclude the large country can be overcome: in political equilibrium we still find a PTA (now an FTA) between the small countries, but in addition they agree to form a 3-country plurilateral agreement for the differentiated product which includes the large country. The implication is that allowing plurilateral agreements overcomes the well-known exclusion incentive, and moves us closer towards global free trade (closing from 22% to 53% of the welfare gap), in line with the multilateral WTO approach. As long as the first best – global free trade covering all products – remains out of reach, this is actually a second best policy.

For completeness, we also consider the size constellation with two large and one small country. The standard result – without plurilaterals – suggests that the two large countries form a PTA, and we can confirm this for a wide range of the parameter space. The reason why the third (small) country is not included in the PTA is different from before, the small country actually prefers to free ride by staying outside of the agreement. Allowing plurilateral agreements, we show that they can overcome the free-riding incentive and the small country chooses to enter in a plurilateral with the large countries. However, overcoming the free-riding incentive can also be achieved by other means, for example by allowing the small country to act as a FTA-hub.

In terms of empirical relevance, we report here on the latest study of the information technology agreement (ITA). In "The Impact of Plurilateral Agreements", Chochua and Iodice (2025) focus on the second phase expansion of the ITA. The expansion in 2015 broadened the scope to include a wider array of high-tech products. The ITA represents a prime example of a plurilateral agreement under the WTO framework, and covers approximately 12% of global trade.

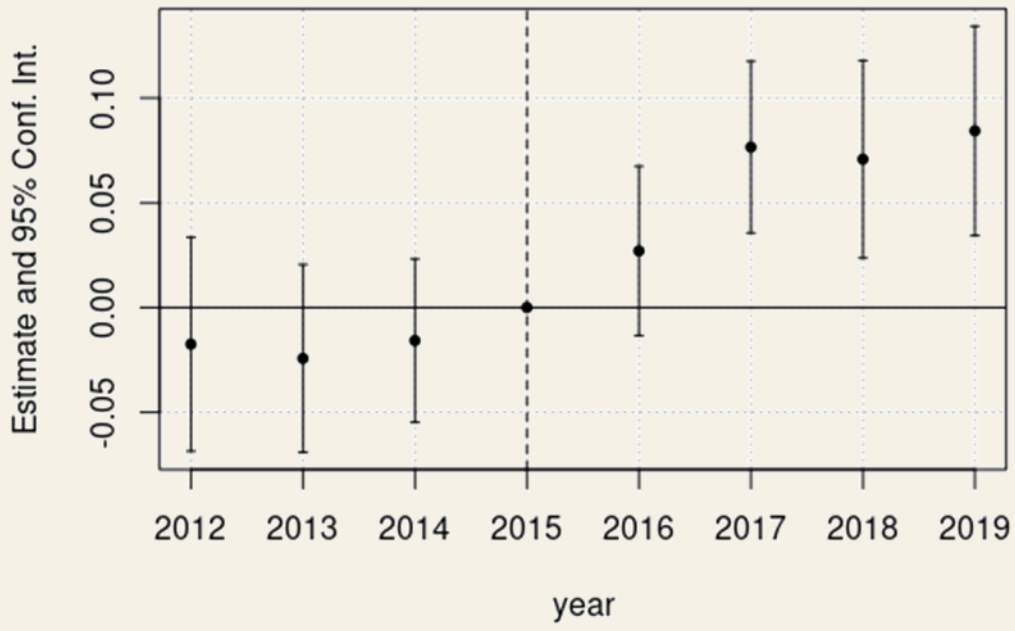
Chochua and Iodice measure the economic impact of the ITA's second phase expansion via three channels: tariff reduction, reduced trade policy uncertainty (due to the elimination of bound tariffs), and the *plurilateral effect*. The plurilateral effect captures the increased market access beyond what can be attributed to tariff

reductions or the removal of bound tariffs. Using variations in the number of countries liberalizing specific products, they demonstrate how the magnitude of this the plurilateral effect depends on the level of participation.

Their dataset comprises the years from 2012 to 2019 and considers 50 ITA member countries and 145 non-members. It includes data on trade flows, tariffs, ITA schedules, and standard gravity model variables. To identify the expansion's effects, they compare the products for which trade was liberalized with a control group of products that were proposed by the Information Technology and Innovation Foundation (ITIF) in collaboration with industry groups for a potential future third phase expansion. This control group includes 251 HS6 product lines not covered in earlier phases, allowing them to isolate the impact of liberalization from broader industry trends. The analysis incorporates four tariff categories: preferential, MFN, bound MFN, and phased-out bound tariffs.

Their empirical findings show that the ITA's phase 2 expansion significantly increased market access for liberalized products. After the implementation in 2016, treated products saw a 4–6% rise in market access compared to control group products (as shown in the figure). Note that before 2015, no significant difference existed between treated and non-treated products, i.e. there was no pre-trend. Post-expansion, the differences are positive and statistically significant, the effects slightly increasing over time.

Figure 1: Market Access Evolution: Liberalized Under ITA vs Control Goods



The increase in market access is estimated to be 4.33%. Out of this increase close to a third (1.27%) is due to the reduction in MFN tariffs (by 3.8 p.p.). Exactly one quarter is due to reduced tariff uncertainty, brought about by a 7.85 p.p. cut in the tariff bindings. And close to half (2.0 of those 4.33 percent) is attributable to the coordinated effect of ITA membership. This plurilateral effect suggests that market access gains under a plurilateral agreement are not merely the result of tariff reductions or bound tariff eliminations but are amplified by the coordinated actions of multiple countries simultaneously liberalizing the same set of products. Their analysis of the plurilateral effect highlights that products liberalized by a large number of countries experienced greater market access gains. This underscores the importance of achieving critical mass in the number of countries when it comes to plurilateral agreements.

This empirical study underscores the profound role of plurilateral agreements like the ITA in advancing global trade. By reducing tariffs, alleviating trade policy uncertainty, and amplifying market access through coordinated efforts, these agreements demonstrate their critical importance in facilitating international trade liberalization. The findings offer valuable insights for shaping future trade policies and reaffirm the potential of plurilateral agreements to address the challenges confronting the WTO.

Returning to the broader picture of global trade policy coordination, what is the role of plurilateral agreements? The broad, multilateral WTO liberalization process has not made progress over the past quarter century. On the preferential side, attempts to widen existing agreements by joining forces and forming mega regionals did not make much headway either, before Trump 2.0 came along and pushed others to band together. Still, the first best outcome, global free trade, remains out of reach for the foreseeable future. In the meantime, focussing on specific sectors or issues represents an important way forward. This is the path that many countries have chosen for information technology and civil aircraft, as well as for government procurement. It could and should be applied to more sectors in the future: green technology, for example, such as solar panels, windmills, or electric vehicles. This would not only yield economic benefits but help us stem the tide of climate change as well.

References

Bagwell, K., Brown, C.P., and Staiger R.W. (2016). Is the WTO Passé?. *Journal of Economic Literature* 54(4): 1125–1231. DOI: 10.1257/jel.20151192

Chochua, L., and Iodice, I. (2025). Tariff Cuts, Policy Uncertainty, and the Force of Many: The Impact of Plurilateral Agreements. CESifo Working Papers 12125, September 2025.

Chochua, L., Lake, J., and Willmann, G. (forthcoming). Can plurilateral agreements facilitate global trade liberalization?. Working Paper forthcoming.

Chwe, M. S.-Y. (1994). Farsighted Coalitional Stability, *Journal of Economic Theory* 63(2): 299–325. Doi: 10.1006/jeth.1994.1044 .

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